UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	Phillip D. Neumiller et al	Group Art Unit:	2616
Application No.:	10/022,269	Examiner:	Nittaya Juntima
Filed:	December 20, 2001	Confirmation No.	2363
Title:	SYSTEM AND METHOD FOR PERFORMING MACRO-DIVERSITY SELECTION AND DISTRIBUTION OF ROUTES FOR ROUTING DATA PACKETS IN AD-HOC NETWORKS		

AMENDMENT AFTER FINAL

Mail Stop AF
Commissioner for Patents
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Sir:

Responsive to the Office Action dated August 10, 2006, and Examiner's comments with regard thereto, for which the shortened statutory period for response was set to expire 3 months from that date, please enter the following amendment and response in the above captioned matter, without prejudice or disclaimer. Applicant respectfully requests the Examiner to reconsider the rejections made in the Action and to allow the claims to issue.

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Amendment to the Drawings begin on page 7 of this paper and include replacement Sheets 1- 12, Figs. 1-12.

Remarks/Arguments begin on page 8 of this paper.

Amendment to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (currently amended) A method for transmitting a data packet from a mobile node in a mobile ad-hoc communications network, said data packet being addressed to a destination node in said network, the method comprising:

transmitting a request to send message from said mobile node directed to a plurality of relay nodes in said network;

receiving by said mobile node a respective clear to send message from at least one of said plurality of relay nodes;

transmitting said data packet from said mobile node to said at least one of said plurality of relay nodes; [[and]]

~~transmitting~~ forwarding said data packet from each of said at least one of said plurality of relay nodes to said destination node via a set of available routes in said network;

receiving at least one realization of said data packet at said destination node via at least one of said available routes; and

processing said received at least one realization of said destination node to minimize a likelihood of packet error.

2. (cancelled)

3. (currently amended) A method as claimed in claim 1 [[2]], wherein:

when said destination node receives [[said]] a plurality of realizations of said data packet[[s]] in a Rake window, said destination node combines said plurality of realizations of said data packet; and

when said destination node receives [[said]] a plurality of realizations of said data packet[[s]] outside of said Rake window, said destination node buffers said plurality of realizations of said data packet[[s]] in a delay jitter buffer and selects one of said plurality of realizations of said data packet[[s]] meeting a certain criteria.

4. (cancelled)

5. (cancelled)

6. (currently amended) A method as claimed in claim 1, wherein:

said data packet transmitting ~~narrowcasts~~ multicasts said data packet to said at least one of said plurality of relay nodes.

7. (cancelled)

8. (currently amended) A method as claimed in claim 1, wherein:

said request to send message and said clear to send messages each include unicast addressing information representing [[an]] said set of available ~~number of~~ routes in said network via which to route said data packet to said destination node, each of said available routes including at least one of said plurality of relay nodes.

9. (currently amended) A method for communicating a data packet addressed to a destination node from a plurality of relay nodes in a mobile ad-hoc communications network to said destination node in said network, the method comprising:

transmitting a request to send message from each of said plurality of relay nodes in said network to said destination node;

transmitting a clear to send message from said destination node to at least one of said plurality of relay nodes; and

transmitting said data packet from said at least one of said plurality of relay nodes in said network to said destination node via a set of available routes in said network;

receiving at least one realization of said data packet at said destination node via at least one of said available routes; and

processing said received at least one realization of said destination node to minimize a likelihood of packet error.

10. (cancelled)

11. (cancelled)

12. (currently amended) A mobile node in a mobile ad-hoc communications network, adapted to transmit a data packet being addressed to a destination node in said network, said mobile node comprising:

a transmitter, ~~adapted to~~ for transmitting a request to send message from said mobile node directed to a plurality of relay nodes in said network; and

a controller, ~~adapted to receive~~ for receiving a respective clear to send message from at least one of said plurality of relay nodes, and further ~~adapted to~~ for controlling said transmitter to transmit said data packet to said at least one of said plurality of relay nodes in said network in response to receiving said respective clear to send message,

wherein said request to send message and said clear to send messages each includes unicast addressing information representing a set of available routes in said network via which to

route said data packet to said destination node, each of said available routes including at least one of said plurality of relay nodes.

13. (cancelled)

14. (cancelled)

15. (currently amended) A mobile node as claimed in claim 12, wherein:

said transmitter multicasts ~~narrowcasts~~ said data packet to said at least one of said plurality of relay nodes.

16. (cancelled)

17. (currently amended) A mobile ad-hoc communications network, comprising:

a mobile node; and

a plurality of relay nodes, being within broadcast distance of said mobile node;

said plurality of relay nodes ~~being adapted to~~ comprising means for transmitting a request to send message to said mobile node in said network;

said mobile node ~~being adapted to~~ comprising means for transmitting a clear to send message to at least one of said plurality of relay nodes acknowledging [[when]] said mobile node ~~is capable of~~ will receive ~~receiving~~ a data packet from said at least one of said plurality of relay nodes,

wherein said request to send messages and said clear to send message each includes unicast addressing information representing a set of available routes in said network via which to route said data packet to said destination node, each of said available routes including at least one of said plurality of relay nodes; and

each of said at least one of said plurality of relay nodes ~~being adapted to~~ comprising means for transmitting said data packet to said mobile node upon receiving a respective said clear to send message from said mobile node via said available routes.

18. (cancelled)

19. (currently amended) A mobile ad-hoc communications network as claimed in claim 17, wherein:

said at least one of said plurality of relay nodes transmits said data packet to said mobile node after every one of said at least one of said plurality of relay nodes has received a respective said clear to send message from said mobile node.

20. (previously presented) A mobile ad-hoc communications network as claimed in claim 17, wherein:

at least one of said plurality of relay nodes is mobile.

AMENDMENTS TO THE DRAWINGS

Please amend the drawings by replacing FIGs. 1-10 (sheets 1-12) with replacement FIGs. 1-12 (sheets 1-12). The drawings have been amended to formal drawings from the original informal drawings which were submitted previously.

REMARKS/ARGUMENTS

Reconsideration of this application in light of the present amendment and remarks is respectfully requested. In the outstanding office action, claims 1-3, 6-9, 12, 15, 16, 17, 19, and 20 are pending in the application. Claims 1-3, 6-9, 12, 15, 16, 17, 19, and 20 are rejected. Claim 16 is objected to.

The drawings have been amended herein to formal drawings from the original informal drawings which were submitted previously.

In response to the office action, claims 1, 3, 6, 8, 9, 12, 15, 17, and 19 were amended. Claims 2, 7 and 16 were cancelled. Claim 20 remains unchanged.

Applicants respectfully request entry of this amendment after final rejection as it merely cancels claims and/or complies with formal requirements made in the Office Action of August 10, 2006.

Claim Objections:

In response to the Examiner's objections, Claims 3, 8, and 19 have been amended according to the Examiner's objections in item 3, page 2 of the Office Action dated August 10, 2006. The objection to claim 16 is moot in view of the cancellation of claim 16 herein.

Rejection of Claims 2 and 3 under 35 U.S.C. 112, second paragraph:

The rejection to claim 2 is moot in view of the cancellation of claim 2 herein.
In response to the Examiner's rejection of Claim 3 under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter Applicant regards as the invention, Applicants have herein amended 3. Specifically, Claim 3 has been amended to clarify the operation at the destination node when a plurality of realizations of the data packet are received.

Allowable subject matter:

Applicants acknowledge the allowability of claim 16 once amended to be rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have herein amended the base claim 12 to include the limitations of claim 16, therein providing the base claim 12 in allowable form.

Applicants acknowledge the allowability of claims 2-3 and 7-8 if rewritten to overcome the rejections under 35 U.SC. 112, second paragraph including all the limitations of the base claim and any intervening claim. Applicants have herein amended base claim 1 to include an amended version of claim 2 to overcome the rejection under 35 U.S.C. 112. Specifically, Claim 1 includes the limitations of previously presented claim 2 to change "receiving a plurality of realizations of said data packet" to "receiving at least one realization of said data packet". This amendment clarifies the claim language if only one relay node is being received from.

Claim 3 has been amended to be dependent on amended claim 1, and claim 8 remains dependent upon amended claim 1, which claim is now believed allowable.

Rejection of Claims 1, 6, 12, and 15 under 35 U.S.C. 102(e) as being anticipated by Srikrishna et al (US 7,031,293):

Applicants respectfully request reconsideration of the rejection of Claims 1, 6, 12, and 15 under 35 U.S.C. 102(e) as being anticipated by Srikrishna et al (US 7,031,293) as herein amended.

Independent Claim 1 has been amended to incorporate the limitations of allowable claim 2 including amendments to overcome the rejections under 35 USC 112, second paragraph, and thus is respectfully believed to be in allowable form. Dependent Claim 6 is respectfully believed to be in allowable form based on its dependency on Claim 1.

Independent Claim 12 has been rewritten to incorporate the limitations of allowable claim 16. Dependent Claim 15 is respectfully believed to be in allowable form based on its dependency on Claim 12.

Rejection of Claims 9, 17, 19, and 20 under 35 U.S.C. 103(a) as being unpatentable over Srikrishna et al (US 7,031,293):

Applicants respectfully request reconsideration of the rejection of Claims 9, 17, 19, and 20 under 35 U.S.C. 103(a) as being unpatentable over Srikrishna et al (US 7,031,293) as herein amended.

Independent Claim 9 has been amended to incorporate the limitations of allowable Claim 2 including amendments to overcome the rejections under 35 USC 112, second paragraph, and is therefore respectfully believed to be in allowable form.

Independent Claim 17 has been amended to incorporate the limitations of allowable Claim 16 and is therefore respectfully believed to be in allowable form. Dependent Claims 19 and 20 include further limitations of the now believed allowable Claim 17 and therefore are respectfully believed to be in allowable form.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

The Applicants believe that the subject application, as amended, is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge Deposit Account 502117, Motorola, Inc, with any fees which may be required in the prosecution of this application.

Respectfully submitted,

October 10, 2006

By: /Randi L. Karpinia/

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